GSA

GSA New England Region

January 24, 2011

Ms. Kimberly N. Tisa
Regional PCB Coordinator
EPA New England, Region 1,
5 Post Office Square - Suite 100
Boston, MA 02109-3912

RE: PCB Window Caulking Remediation Work Plan (Plan)
Margaret Chase Smith Federal Building
202 Harlow Street
Bangor, Maine

Dear Ms. Tisa:

The U.S. General Services Administration (GSA) is transmitting the enclosed *"PCB Window Caulking Remediation Work Plan – Margaret Chase Smith Federal Building, 202 Harlow Street, Bangor, Maine"* dated January 18, 2011. This Plan has been developed in accordance with 40 CFR 761 .61, to address polychlorinated biphenyl (PCB) containing caulking identified on the window systems present at the Margaret Chase Smith Federal Building located in Bangor, Maine. This Plan summarizes the data associated with PCB sampling at this building and includes a proposed remediation plan for removal and disposal of the PCB caulking and cleaning of the associated building materials from the affected window systems.

The work described in this Plan is part of a larger renovation project currently underway at the Margaret Chase Smith Federal Building. The PCB remediation work is scheduled to commence upon U.S. Environmental Protection Agency (USEPA) approval of the Work Plan.

Please do not hesitate to contact me at (617) 565-5733, if you have any questions, comments or require additional information.

Sincerely,
U.S. General Services Administration

Peter J. Menzies; Project Manager
Design and Construction Division, 1PCM
Public Buildings Service
New England Region
U.S. General Services Administration
10 Causeway Street, 11th Floor
Boston, MA 02222

Enclosure

U.S. General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street
Boston, MA 02222
www.gsa.gov

PCB WINDOW CAULKING REMEDIATION WORK PLAN
MARGARET CHASE SMITH FEDERAL BUILDING
202 HARLOW STREET
BANGOR, MAINE 04401

Prepared for:

U. S. General Services Administration
Thomas P. O'Neill, Jr., Federal Building
10 Causeway Street
Boston, MA 02222

Prepared by:

Hopkins Engineering, Inc.
and
Summit Environmental Consultants, Inc.

January 18, 2011
Project No. 16134.6

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FIGURES

APPENDICES

The Notification (PCB remediation plan) calls for the removal of the PCB caulk that is located between the slate and the metal window frames from the north, east, and west sides of the building. Following removal and cleaning of the surfaces, an alternative sampling is proposed for the slate spandrels and the metal frames that includes the following:

- For the slate/frame interface - 1 sample of slate spandrel per every 40 linear feet (LF) of slate/frame interface for the first 200 LF. The frequency would change to 1 sample every 200 LF for the remainder, if the initial sample results are consistently acceptable (i.e. < 1 ppm). There is approximately 2,250 LF of slate/frame interface caulk. This would result in approximately **16 porous slate samples**.

    - Encapsulation is planned, as a contingency, should the porous surfaces (slate) fail to meet the 1 ppm PCB cleanup goal. This contingency will be used if the concentration of PCBs in the slate is between 1 and 25 ppm and would be a decision by the remediation contractor.

- For the metal frames – 1 sample per every 25 LF for the first 200 LF (8 samples). The frequency would change to 2 samples per 200 LF (which EPA assumes to mean 1 sample per 100 LF, for a total of 21 samples), if the initial sample results are acceptable (i.e. < 10 $\mu g/100\ cm^2$). **(total 29 verification samples)**

EPA has reviewed the Notification and has determined that it is incomplete and does not meet the notification requirements at 40 CFR § 761.61(a)(3). Specific comments follow:

1. Section 761.61(a)(3) requires that a copy of the Notification be provided to the state and local environmental agencies. Please confirm if this was done and who the contacts within these agencies are.

2. With respect to the < 50 ppm PCB products, no justification has been provided to support that these products are not regulated for cleanup under § 761.62 and/or § 761.61. These products would have to meet the definition of an Excluded PCB Product as defined under § 761.3 and GSA has not justified that these products meet the definition criteria. Further, it is unclear if GSA has collected sufficient samples to support that the reported PCB concentrations are representative for the building. For example:

    - Type 2 windows at the frame/slate junction located on the first floor north and west contain PCBs at ≥ 50 ppm; on the east side contain PCBs at 28 ppm; and on the south side show PCBs < 0.50 ppm. However, only 1 sample was collected for each. Thus, EPA is not convinced that PCBs on the east side (11 windows of this type) with this particular type would be < 50 ppm and the same would hold true for the south side (9 windows of this type).

PCB WINDOW CAULKING REMEDIATION WORK PLAN
MARGARET CHASE SMITH FEDERAL BUILDING
BANGOR, MAINE

1.0 INTRODUCTION

On behalf of the U.S. General Services Administration (GSA), Summit Environmental Consultants, Inc. (Summit) has prepared this polychlorinated biphenyl (PCB) Window Caulking Remediation Work Plan (Work Plan). This Work Plan addresses the removal of caulking containing PCBs from identified window systems of the Margaret Chase Smith Federal Building located on Harlow Street in Bangor, Maine. The GSA is proposing to replace all window units in the building as part of an energy upgrade program associated with a comprehensive building renovation project. Window frames (including inset slate spandrels) will remain while the associated window units (glass, glazing, and internal frames) will be removed and replaced.

PCBs were used as a plasticizer in caulking and in elastic sealant materials, primarily from 1950 through 1978. The caulk/sealants were used in windows and associated window systems, door frames, stairways, masonry columns and other masonry building materials. PCBs were not used in these materials after 1978. Consistent with US Environmental Protection Agency (USEPA) guidelines, caulking defined as PCB containing has a PCB content of equal to or greater than 50.0 parts per million (≥ 50.0 ppm). At this level, the caulk containing PCBs is not an authorized use under the PCB regulations and must be removed. When removed, these materials are considered a controlled hazardous waste material under the Toxic Substance Control Act (TSCA).

1.1 Outreach Activities

The GSA will conduct outreach activities for occupants of the Margaret Chase Smith Federal Building and contractor personnel associated with the renovation project. Outreach will include written notification to building occupants and contractor personnel. This notification will include:

- General information regarding PCBs in window caulk;
- The location of PCB impacted materials present at the building;
- The proposed project scope of work and how to identify and avoid remediation work area;
- Public protection measures including containments, critical barriers, air monitoring and post-removal sampling/analysis;
- Project schedule;
- Contact information for questions and comments.

The notification will be distributed to employees working within the building and posted in conspicuous locations for public viewing.

Formal submittal of the plan for outreach activities will be submitted to USEPA within 30 days of Work Plan approval.

1.2 Contact and Certification

The GSA person providing this notification and certification who will be responsible for this project is Mr. Peter J. Menzies, Authorized Signatory for GSA. Contact information is provided below:

Mr. Peter J. Menzies, Project Manager
Design and Construction Division, 1 PCM
Public Buildings Service
New England Region
U.S. General Services Administration
10 Causeway Street, 11th Floor
Boston, MA 02222
Office: (617) 565-5733
peter.menzies@gsa.gov

I certify that I am the person in charge of the PCB cleanup, representing the owner of the property where the PCB remediation waste is located. I certify that all sampling plans and collection procedures, laboratory analytical procedures and analytical results used to assess or characterize the PCB contamination at the clean-up site are on file at the location indicated above and are available for U. S. Environmental Protection Agency (USEPA) inspection.

Authorized Representative (Signature)

Mr. Peter J. Menzies

Name of Authorized Representative (printed)

Project Manager

Title

1 - 24 - 2011

Date

2.0 BACKGROUND

Under contract with the GSA, TENG and Associates, Inc. (TENG) contracted with Hopkins Engineering, Inc. (HEI) and Summit to perform hazardous materials surveys in support of the planned renovation project at the Margaret Chase Smith Federal Building. Among other hazardous or toxic materials identified, HEI and Summit identified PCB containing caulking associated with the window systems of the facility. Since the caulking was planned for removal as part of the renovation project, additional sampling of the adjacent building materials, as well as baseline soil sampling was performed. The following sections summarize the findings of those surveys.

2.1 Window Caulk Sampling

Because the Margaret Chase Smith Federal Building was constructed prior to 1980, and following the GSA process for managing PCB caulking during renovations, sampling of window caulking and glazing from windows impacted by the planned renovation was completed. Evaluation and sampling of caulking on window systems and frames installed in the Margaret Chase Smith Federal Building was conducted by Summit on August 5, 2010. During the sampling, representative caulking was identified and classified by system or use (e.g.; caulking associated with the junction of window frames and the surrounding substrate; or caulking associated with the wall junctions, etc.). Summit collected 50 caulk samples from seven specific types of window/door systems and other uses from the exterior of the building. These systems/uses included:

- Large windows present on the front (north elevation) of the building (Type 1 Window);
- Small narrow windows present on the first floor level on all sides of the building (Type 2 Window);
- Small single/double windows present on the second and third levels of the building (Type 3 Window);
- Front entry doors;
- Side entry doors;
- Exhaust vents associated with the HVAC room; and
- Roof system to exterior wall junction (roof associated with USPS loading dock).

Window systems are of similar construction type with metal frames and inset slate panels (spandrels) above and/or below each glass panel. Windows on the second and third floors are set in slate/stone panels on the north, east and west elevations, and in brick on the south elevation. Windows present on the first floor are set in brick, with the exception the center section of the north elevation which is slate/stone. Caulk and glazing was observed to be homogeneous for all types of windows and included;

- Brown caulk present around the perimeter of the window system frame at the junction of the metal frame and associated substrate (brick, slate/stone, and concrete columns);
- Gray caulk present within the perimeter of the window system frame at the junction of the metal frame and inset slate spandrels; and
- Black glazing present on the interior and exterior of the window system between the glass and metal frame.

In addition to caulk associated with window systems, the following materials were also sampled:

- Gray caulk at the junction of the roof membrane (present over the USPS loading dock) and south elevation wall;
- Black caulk associated with main entry doors present on the north elevation;
- Gray caulk associated with the side entry door (east elevation); and

- Gray caulk around the perimeter of the supply air vents for the HVAC Room (south elevation).

Representative samples of caulking associated with these systems/uses were collected from all elevations and all floors of the building. Sample locations are present on Figures 1 through 4.

Collected samples were analyzed by *TestAmerica Laboratories, Inc.* using USEPA Analytical Method SW-846-8082 for PCBs and sample preparation Method SW-846-3540C. A summary of the analytical results is included in Tables 1 and 2. Laboratory analysis reports are included in Appendix A.

The following areas were identified as having caulking with $\geq$ 50.0 ppm PCB content:

1. Gray caulk – Junction of metal window frames to inset slate panels.
2. Window glazing – Junction of metal window frames and glass panes (note: only one sample was identified as $\geq$ 50.0 ppm. Remaining glazing samples were determined to be none detected (ND) or < 50.0 ppm).

Based upon these results, caulking/glazing present on the following areas should be considered to be PCB-containing:

1. Junction of metal window frames to slate spandrels inset into window systems;
2. Junction of metal window frames and window panes.

2.2 Slate Spandrel Sampling

Following identification of PCB containing caulk at the junction of metal window frames to slate spandrels inset into window systems, Summit conducted representative sampling of the slate spandrels. The sampling was performed on October 28 and 29, 2010 and November 1, 2010 to determine if PCBs may have migrated into the adjacent slate spandrel. Window systems are of similar construction type with metal frames and inset slate panel spandrels above and/or below each glass panel. Caulk and glazing was observed to be homogeneous for the windows sampled. For a typical window system, three (3) slate samples were collected from the following locations:

- Immediately under the caulk bead
- One inch into the slate from the caulk bead, and
- Two inches into the slate from the caulk bead.

Summit collected 30 slate samples from ten locations as shown of Figures 1, 2 and 3. Eight of these locations were window systems originally identified with PCB containing caulk. One location, associated slate samples S1N-004, 005 and 006, had an associated PCB concentration in the caulk of 28.0 ppm. A 10th window system originally identified with PCB containing caulk (located on the second floor, north side of the building) could not be accessed for slate sampling. As a substitute, caulking and slate was sampled from an adjacent widow, identified as S3N.

Sampling was performed following the USEPA Region 1 "Draft Standard Operating Procedures for Sampling Concrete in the Field" (December 1997) using a rotary hammer drill with 5/8-inch masonry bits. The drill bits were decontaminated or replaced after each hole was completed. Sample locations immediately under the caulk bead were lightly scraped to remove residual caulk (if present) and then washed with "Simple Green" before sampling the slate.

Collected samples were analyzed by Analytics Environmental Laboratories, Inc. (Analytics) of

Portsmouth, New Hampshire, using USEPA Analytical Method SW-846-8082 for PCBs and sample preparation Method SW-846-3540C. A summary of the analytical results is included in Table 3. Laboratory analysis reports are included in Appendix B. Sampling locations are shown on Figures 1 through 3.

Samples of slate spandrels were reported by the laboratory to range from "undetected" for PCBs to 1.090 ppm PCB content, significantly less than the 50.0 ppm USEPA threshold. These low levels of PCB are assumed to be from residual caulking remaining on the spandrel following pre-sample cleaning.

The window caulking associated with window S3N was reported to contain 136.0 ppm PCBs (refer to laboratory report for sample S2N-006 in Appendix B). This level of PCBs is consistent with other windows with PCB caulk.

Based on the sampling and analysis discussed above, PCB containing caulking does not appear to have migrated into the underlying slate spandrels.

2.3 Soil Sampling

In addition to slate sampling, four soil samples were collected along the north side of the building (the other three sides were paved). Two samples were collected from the west end of the north side beneath window systems previously identified with PCB containing caulking (e.g., S2N and S3N). Two samples were collected from the east end. The caulk present on these windows was observed to be in good condition, with no cracking or delamination, and visible caulk debris was not observed on the ground surface below the windows.

PCB content of soil along the north side of the building was reported to range from "undetected" to 0.412 ppm for PCBs. Refer to Table 4 and Appendix C for soil sampling results.

3.0 PCB REMEDIATION OVERVIEW

The primary objective of this PCB remediation project is to remove and properly dispose of the PCB-containing caulking associated with the junction of metal window frames to slate spandrels inset in the window systems of the facility.

While not a remediation project governed by this Work Plan, the window units (glass, glazing, and internal frames) will be removed prior to, or following removal of PCB caulking and cleaning of the window frames and slate spandrel. As discussed in Section 2.2 above, PCBs have been identified in the window glazing (i.e., the junction of metal window frames and glass panes). As a result, individual window units will be removed as a "whole component" from the frames and handled/disposed as PCB containing Remediation Waste. Window frames will not be removed.

3.1 Remediation Goals

The Scope of Work presented in this Work Plan is based on the removal of PCB-containing materials (caulk and associated substrates) present with concentrations ≥ 50.0 ppm from the affected window identified at the Margaret Chase Smith Federal Building. The GSA will perform the work following the "Self-implementing on-site cleanup and disposal of PCB remediation waste" under 40 CFR 761.61. Consistent with USEPA guidelines, PCB containing caulking having a PCB content of ≥ 50.0 ppm is considered a controlled hazardous waste material under TSCA. Specific clean-up goals for porous surfaces (e.g., slate spandrels) remaining after the remediation project will be based upon the TSCA clean-up standards of ≤ 1.0 ppm for porous surfaces present within high occupancy areas "without further condition" (40 CFR 761.61(a)(4)(i)(A)).

3.2 PCB Caulking Locations

As presented in Section 2.1 above, gray colored caulk at the junction of metal window frames to inset slate spandrels were identified as having ≥ 50.0 ppm PCB content. Based on the sampling and analysis discussed in Section 2.2; PCB containing caulking does not appear to have migrated into the underlying slate spandrels; however, residual caulk will require removal/cleaning from the surface of the slate spandrel.

Refer to Figure 5 for a diagram of a typical window.

3.3 Contractor Training and Supervision

Work on this project will be performed by a Remediation Contractor experienced in the abatement and handling of hazardous materials and waste. The Remediation Contractor and his (her) personnel shall comply with the following requirements:

A. All personnel performing PCB removal activities must have required training, medical examinations and respirator fit testing (if required) as specified by OSHA. Training will include, but may not be limited to, the contents and implementation of this Work Plan and health and safety training relative to the removal, handling and disposal of PCB-containing caulking and associated materials.

B. The Remediation Contractor shall have a qualified project superintendent with appropriate training (as identified above) and knowledge of applicable TSCA regulations on site during all work involving removal/disturbance of PCB caulking and substrate materials.

3.4 Recordkeeping and Reporting

A. The GSA shall prepare and maintain all records and documents required by 40 CFR Part 761, including, but not limited to the records required under Subparts J and K.

B. A written record of the decontamination and the analytical sampling shall be established and maintained by the GSA in one centralized location, until such time as USEPA approved in writing a request for alternative disposition of such records.

C. All such records shall be made available for inspection to authorized representatives of USEPA.

D. The GSA shall submit a final report to USEPA within 60 days of completion of remediation activities. This final report shall include, but may not be limited to:

- A short narrative of project activities;
- Characterization and confirmation sampling analytical results;
- Copies of the accompanying analytical chains of custody;
- Field and laboratory quality control/quality assurance checks;
- An estimate of the quantity of PCB waste disposed of and the size of the decontaminated area(s);
- Copies of manifests; and,
- Copies of certificates of disposal or similar certifications issued by the disposer.

E. Required submittals shall be mailed to:

USEPA Region 1 PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

4.0 PCB REMEDIATION WORK PLAN

The intent of this Work Plan is to provide guidance to the Remediation Contractor to:

- Remove/clean caulking and residual from the window frames and slate spandrel surfaces on the north, west and east sides of the building,
- Protect the ground surface and adjacent interior and exterior building areas, and,
- Properly containerize caulking and residue for waste disposal by others.

Work shall be performed in accordance with applicable Maine Department of Environmental Protection (MEDEP), USEPA, U.S. Department of Transportation (DOT) and the Occupational Safety and Health Administration (OSHA) regulations.

4.1 General

A. The Remediation Contractor shall furnish all labor, materials, and equipment required to safely remove and handle PCB-containing caulking from porous (slate spandrels) and non-porous (anodized aluminum frames) surfaces. Materials shall include, but not be limited to, appropriate Personal Protective Equipment (PPE), cleaning agents and polyethylene sheeting for barriers and ground cover. Equipment shall include, but not limited to, appropriate hand tools, HEPA vacuums for clean-up of residual dust and debris, negative air machines (NAMs), as well as sufficient and appropriate waste containers for wastes generated as part of this project.

B. The Remediation Contractor shall provide for interior and exterior dust control during caulking removal and cleaning activities. PCB-containing dust must not be released into interior building locations or to the exterior of the work area. Engineering controls and work practices, including the construction of critical barriers encompassing the work area(s) on the interior and exterior of the building, will be employed to minimize dust migration within and outside of the work area.

C. The amount/area of caulking removal shall be limited to what can be removed and cleaned up within a single work day.

D. A pre-construction meeting will be conducted prior to commencement of work impacting PCB-containing caulking. Attendees will include (at a minimum) representatives of the GSA, the project architect, the General Contractor's Project Manager, the Remediation Contractor's Supervisor and the environmental consultant. Details and logistics of the remediation project will be discussed at this meeting.

E. The Remediation Contractor will utilize the staging furnished and erected by the General Contractor. The General Contractor shall be responsible for coordination with, and providing necessary access and support to, the Remediation Contractor.

F. For this project, PCB Bulk Product Waste includes, but may not be limited to:

- PCB containing caulking.

G. PCB Remediation Waste includes, but may not be limited to:

- Materials in contact with specified PCBs (e.g., substrate);
- Cutting debris;
- Used PPE and used poly sheeting in contact with specified PCBs;
- Contaminated debris in contact with specified PCBs; and,

- Rags and wipes used to clean surfaces in contact with specified PCBs.

4.2 Sequence of Work

To remove PCB containing caulking and facilitate the removal and replacement of window systems, the following sequence of work and associated work practices will be employed by the Remediation Contractor:

1. Remove materials and furniture present behind the window(s) scheduled to be replaced, to facilitate critical barrier placement to isolate the interior of the room from work activities.
2. Secure one layer of 6-mil polyethylene (poly), covered by a 3/8 inch thick (minimum) plywood sheet as a critical barrier, to the inside of each window, from the top of the frame to the bottom.
3. Establish the work area zone using barrier (danger) tape.
4. Stage DOT shippable waste containers adjacent to the work area. The interior of each container will be double lined containers with 6-mil poly bags. Waste containers shall be marked as either "PCB Bulk Product Waste" or PCB Remediation Waste in accordance with 40 CFR §761.40 and §761.65.
5. Remove and properly containerize any visible residual caulking present on the ground surface beneath the work area prior to preparation of the exterior work for PCB removal. This pre-cleaning will be performed prior to placement of ground cover and construction of a containment structure. This material shall be containerized as "PCB Bulk Product Waste".
6. Visible caulk debris present within the window wells will also be removed prior to placement of ground cover.
7. Install/place a ground cover below the work area using 6-mil poly sheeting placed over a canvas tarp (or similar). The poly sheeting and tarp shall be secured to prevent blowing from wind and reinforced against damage by ladders or staging. The poly sheeting and tarp shall abut the building, and extend a sufficient distance away from, and along the building, to capture caulking that may fall to the ground during removal.
8. Utilizing the scaffolding as a frame, secure two layers of 6-mil poly to contain the work area. The poly will be reinforced to prevent dislodgement by wind. The containment shall be constructed to eliminate the release of fugitive dust resulting from the remediation process.
9. Equip the containment with a Negative Air Machine (NAM) equipped with a pre-filter and High Efficiency Particulate Air (HEPA) filter to achieve negative air flow within the containment. Negative air flow will be maintained until clearance has been achieved within the contained area.
10. Don appropriate PPE including coveralls with hood (recommend Tyvek), gloves and, at a minimum, ½-faced negative pressure respirators equipped with High Efficiency Particulate Air (HEPA) cartridges. The respirators shall not be removed while the employees are within the work area. Eating, drinking and smoking are not permitted within the work area.
11. Identify a wash station within the vicinity of the work area that is accessible to the Remediation Contractor's employees.
12. Remove perimeter caulking from between and on the anodized aluminum window frame and adjacent slate spandrel using non-powered hand tools (e.g.; utility knives, hand scrapers/putty knives and hammer and chisel) and a HEPA vacuum. Care shall be taken to minimize pieces of caulking from falling to the ground. Remove the bulk of the caulk to the

accordance with a site-specific air sampling plan. The acceptance criteria for air samples shall be for PCB concentrations to be less th[illegible] OSH REL.

4.4 *Post-Removal Clear[illegible]*

A. The GSA environmenta[illegible] l inspections of work areas and interior surfac[illegible] cceptance criteria is:

- No visible PCB c[illegible] e present;
- All surfaces with[illegible] ris. This includes work areas, work surf[illegible]

B. Failure to meet the acce[illegible] Contractor conducting additional and/or re-cle[illegible], if required, will be performed by the Remed[illegible] SA.

C. After the visual inspecti[illegible] sentative sampling of porous surfaces (slate sp[illegible] nmental consultant to verify adequacy of the c[illegible] basis (i.e. mg/kg) in accordance with USEPA's [illegible] Standard Operating Procedure For Sampling Concrete in the Field, dated 12/30/97, at a maximum depth interval of 0.5 inches. Sample acceptance criteria will be < 1.0 ppm total PCBs.

Sampling frequency will be based on the linear feet of caulk actually removed and visually cleared within the established work area. Initially, the confirmatory sampling of slate spandrel (as a porous material) will be conducted at the frequency of one sample per 40 linear feet for the first 200 linear feet of slate/frame interface. If these samples indicate consistently acceptable results, subsequent slate samples will be collected at a frequency of one per 200 linear feet. As the caulk is homogenous, the sampling frequency proposed is considered representative of the caulk. Sampling locations will be photographed and documented. There is approximately 2,250 linear feet of slate/frame interface caulk proposed for removal.

D. For anodized aluminum frames (e.g., non-porous surfaces), verification will consist of wipe samples using TSCA required protocols and sampling of a 100 square centimeter (cm^2) area per sample. Initially, the sampling frequency (as a non-porous material) will be conducted at the frequency of one sample per 25 linear feet for the first 200 linear feet of impacted aluminum frame. Sample acceptance criteria shall be ≤ 10 µg/100 cm^2 total PCBs. Should initial sampling indicate consistent and adequate cleaning of the impacted aluminum frames, samples will be collected at a frequency of two samples per 200 linear feet of impacted aluminum frame.

As an alternative to continued non-porous surface clearance sampling, if initial sampling shows consistently acceptable results, a performance standard may be considered established, and the remaining cleaned frames cleared using visual inspection. Areas of visual inspection will be photographed and documented. Areas found to contain residual caulk will be re-cleaned and re-inspected.

E. Confirmatory air sampling will be performed in the work areas after the project completion. Post project measured air concentrations of PCBs shall not exceed the NIOSH REL.

F. If any work area containment barriers on the north side of the facility (the only side with turf/soil) are compromised during work practices, confirmatory soil sampling may be required.

4.5 Encapsulation Alternative

A. In the event that the analytical results report an exceedence of the 1.0 ppm total PCBs for porous surfaces the Remediation Contractor will re-clean and the surfaces re-sampled by the GSA, at no additional cost to the GSA. Alternatively, should total PCB results be reported as greater than 1.0 ppm but less than 25.0 ppm, the Remediation Contractor will have the option to encapsulate the portion of the slate spandrel which was located under the PCB caulk bead. Use of this alternative will be implemented only upon approval of the GSA Contracting Officer and performed at no additional cost to the GSA.

B. Encapsulation will be performed using two coats of "ICO-Gel" by International Coatings. ICO-Gel is a three part epoxy patching material designed for vertical and overhead applications. ICO-Gel color will be selected by the GSA Contracting Officer. Refer to Appendix E for product information.

C. Use of this alternative will require the GSA to establish a deed restriction applying to the encapsulated areas. The deed restriction will prohibit disturbance of the encapsulated slate unless performed under a new work plan approved by USEPA.

4.6 Site Restoration

A. During the course of the work, the Remediation Contractor shall keep the site of operations in a clean and orderly condition.

B. The Remediation Contractor shall dispose of all residues resulting from the construction work. At the completion of the work, the Remediation Contractor shall:

- Remove waste materials, rubbish, tools, equipment, machinery, and surplus materials.
- Remove residual tape/adhesive from inside surfaces and restore as necessary.
- Conduct an inspection of surfaces, and all work areas, to verify that the site is in an orderly condition following completion of the work.

4.7 Dust Control

A. The Remediation Contractor shall maintain all work areas free from excess dust to such reasonable degree as to avoid causing a hazard or nuisance to others.

B. Exterior caulking removal shall only be performed when wind conditions do not promote/result in blowing of dust or caulking residue. The Remediation Contractor will be required construct a wind proof containment structure around the work area as described in Section 4.2.

C. Dust sampling/monitoring will be as described in Section 4.3.

4.8 Security and Work Area Access

A. The Remediation Contractor shall be responsible for work area security. Untrained workers and passersby shall not be permitted within the work area as established by barrier tape (or other means approved by the GSA). Hard barriers may be required for work in high traffic areas or work areas with adjacent occupied spaces.

B. US Immigration and Customs Enforcement Pre-Employment check will be required of Remediation Contractor's personnel where necessary to access the building.

4.9 Project Documentation

A. The Remediation Contractor shall maintain, as a minimum, the following:

- Daily field reports documenting completed work, disposal container status, and the names of workers in contact with PCB-containing caulking.
- As-built drawing of windows completed.
- Training records of employees in contact with PCB containing caulking.
- Disposal records as specified in Section 4.10.

4.10 Disposal

A. The Remediation Contractor will be responsible for contracting with a hazardous waste handling company for transport and disposal of the containers. Costs associated with waste transportation and disposal will be the responsibility of Remediation Contractor.

B. Prior to transport, PCB Bulk Product Waste and PCB Remediation Waste will be marked in accordance with 40 CFR §761.40 and temporarily stored in accordance with §761.65.

C. Containers will be properly labeled, transported and disposed as PCB Bulk Product Waste in accordance with 40 CFR §761.61(a) 5 or §761.62 unless otherwise specified below.

D. Decontamination wastes and residues shall be disposed in accordance with 40 CFR §761.79(g).

E. Moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR §761.79(b)(3)(i)(A), §761.79(b)(3)(ii)(A), or §761.79(c)(2).

F. PCB contaminated water generated during decontamination or dewatering shall be disposed under §761.60.

G. A designated GSA representative will be responsible for reviewing and signing shipping papers that designate the GSA as the waste generator.

H. Copies of associated bills of lading, waste shipment records, certificates of disposal will be provided to the GSA by the hazardous waste handling company.

4.11 Project Schedule

The GSA contract at the Margaret Chase Smith Federal Building in Bangor, Maine is currently underway. There is an immediate need to provide the General Contractor access to the interior of the building using a stair tower erected on the exterior of the building and entering through existing window systems in two separate locations. To disassemble the window systems, the PCB containing caulking associated with the window frame/slate spandrel interface will require removal and disposal. The GSA anticipates this removal to occur immediately after the review and approval of this plan by the USEPA.

Work on the remaining window systems is currently scheduled to start on March 10, 2011 with all affected caulking expected to be removed by July 2011.

Tables

Table 1

ANALYTICAL RESULTS OF WINDOW CAULK
CONTAINING EQUAL TO GREATER THAN
50.0 PPM PCBs
M.C. SMITH FEDERAL BUILDING

TABLE 1
ANALYTICAL RESULTS OF
WINDOW CAULK CONTAINING EQUAL TO OR GREATER THAN 50 PPM PCBs
M.C. SMITH FEDERAL BUILDING

SAMPLE #	LOCATION	SAMPLE DATE	RESULT	COMMENTS
FIRST FLOOR				
1N-002	Window - First floor, north elevation	08/05/2010	90.0 ppm	Type 2 Window Metal window frame to inset slate panel - right side
1W-002	Window - First floor, west elevation	08/05/2010	270.0 ppm	Type 2 Window Metal window frame to inset slate panel - left side

SAMPLE #	LOCATION	SAMPLE DATE	RESULT	COMMENTS
SECOND FLOOR				
2N-002	Window - Second floor, north elevation	08/05/2010	78.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom
2N-004	Window - Second floor, north elevation	08/05/2010	79.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom
2E-002	Window – Second floor, east elevation	08/05/2010	450.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom
2W-002	Window – Second floor, west elevation	08/05/2010	99.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	COMMENTS
THIRD FLOOR				
3N-002	Window - Third floor, north elevation	08/05/2010	1,300.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom
3N-005	Window - Third floor, north elevation	08/05/2010	160.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom
3E-002	Window - Third floor, east elevation	08/05/2010	54.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom
3E-003	Window - Third floor, east elevation	08/05/2010	1,800.0 ppm	Type 3 Window Metal window frame junction to glass (glazing)
3W-002	Window - Third floor, west elevation	08/05/2010	330.0 ppm	Type 3 Window Metal window frame junction to inset slate panel - bottom

Table 2

ANALYTICAL RESULTS OF WINDOW CAULK
CONTAINING LESS THAN
50.0 PPM PCBs
M.C. SMITH FEDERAL BUILDING

TABLE 2
ANALYTICAL RESULTS OF
WINDOW CAULK CONTAINING LESS THAN 50 PPM PCBs
M.C. SMITH FEDERAL BUILDING

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	COMMENTS
FIRST FLOOR				
1N-001	Window - First floor, north elevation	08/05/2010	0.720 parts per million (ppm)	Type 2 Window Metal window frame to brick junction - left side
1N-003	Window - First floor, north elevation	08/05/2010	0.60 ppm	Type 1 Window Metal window frame to slate/stone wall system junction
1N-004	Window - First floor, north elevation	08/05/2010	None Detected (ND) 50	Type 1 Window Black glazing – metal window frame to glass junction
1N-005	Window - First floor, north elevation	08/05/2010	ND 50	Type 1 Window White glazing – metal window frame to glass junction
1N-006	Window - First floor, north elevation	08/05/2010	ND	Type 1 Window Metal window frame to white concrete column junction
1N-007	Main entry door – UPSP east entry	08/05/2010	3.60 ppm	Metal door frame to brick junction
1N-008	Window - First floor, north elevation	08/05/2010	ND	Type 2 Window Metal window frame to brick junction - left side
1N-009	Window - First floor, east elevation	08/05/2010	28.0 ppm	Type 2 Window Metal window frame to inset slate panel - left side
1E-001	Window - First floor, east elevation	08/05/2010	ND	Type 2 Window Metal window frame to brick junction - left side
1E-002	Window - First floor, east elevation	08/05/2010	ND	Type 2 Window Metal window frame to inset slate panel - left side
1E-003	Side entry door – east elevation	08/05/2010	0.75 ppm	Gray caulk – metal door frame to brick
1S-001	Window - First floor, south elevation	08/05/2010	ND	Type 2 Window Metal window frame to brick junction
1S-002	Window - First floor, south elevation	08/05/2010	ND	Type 2 Window Metal window frame to inset slate panel
1W-001	Window - First floor, west elevation	08/05/2010	ND	Type 2 Window Metal window frame to brick junction - right side

TABLE 2 - CONTINUED
ANALYTICAL RESULTS OF
WINDOW CAULK CONTAINING LESS THAN 50 PPM PCBs
M.C. SMITH FEDERAL BUILDING

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	COMMENTS
SECOND FLOOR				
2N-001	Window - Second floor, north elevation	08/05/2010	0.52 parts per million (ppm)	Type 3 Window Metal window frame to slate/stone wall system junction – right side
2N-003	Window - Second floor, north elevation	08/05/2010	None Detect (ND)	Type 3 Window Metal window frame junction to concrete column - left side
2N-005	Window - Second floor, north elevation	08/05/2010	ND <0.50	Type 3 Window Metal window frame junction to glass (glazing)
2E-001	Window – Second floor, east elevation	08/05/2010	ND	Type 3 Window Metal window frame junction to concrete column - right side
2E-003	Window – Second floor, east elevation	08/05/2010	2.60 ppm	Type 3 Window Metal window frame junction to glass (glazing)
2S-001	Window - Second floor, south elevation	08/05/2010	ND	Type 3 Window Metal window frame junction to brick right side
2S-002	Window - Second floor, south elevation	08/05/2010	2.8 ppm	Type 3 Window Metal window frame junction to inset slate panel - top
2S-003	Window - Second floor, south elevation	08/05/2010	3.90 ppm	Type 3 Window Metal window frame junction to concrete column - left side
2S-004	Window - Second floor, south elevation	08/05/2010	1.00 ppm	Type 3 Window Metal window frame to metal window sill junction - bottom
2S-005	Roof - Second floor, south elevation	08/05/2010	1.10 ppm	Concrete column to metal roof flashing junction
2S-006	Roof - Second floor, south elevation	08/05/2010	0.87 ppm	Concrete column to metal roof flashing junction
2S-007	Intake Vent Second floor, south elevation	08/05/2010	ND <0.5	HVAC intake vent Metal vent to brick junction
2W-001	Window - Second floor, west elevation	08/05/2010	0.66 ppm	Type 3 Window Metal window frame to slate/stone wall system junction – right side

TABLE 2 - CONTINUED
ANALYTICAL RESULTS OF
WINDOW CAULK CONTAINING LESS THAN 50 PPM PCBs
M.C. SMITH FEDERAL BUILDING

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	COMMENTS
THIRD FLOOR				
3N-001	Window - Third floor, north elevation	08/05/2010	0.76 parts per million (ppm)	Type 3 Window Metal window frame to slate/stone wall system junction – left side
3N-003	Window - Third floor, north elevation	08/05/2010	0.50 ppm	Type 3 Window Metal window frame junction to concrete column - right side
3N-004	Window - Third floor, north elevation	08/05/2010	0.82 ppm	Type 3 Window Metal window frame to slate/stone wall system junction – left side
3N-006	Window - Third floor, north elevation	08/05/2010	2.00 ppm	Type 3 Window Metal window frame junction to glass (glazing)
3E-001	Window - Third floor, east elevation	08/05/2010	1.00 ppm	Type 3 Window Metal window frame junction to concrete column - right side
3S-001	Window - Third floor, south elevation	08/05/2010	0.87 ppm	Type 3 Window Metal window frame to brick junction – right side
3S-002	Window - Third floor, south elevation	08/05/2010	1.30 ppm	Type 3 Window Metal window frame to metal window sill junction
3S-003	Window - Third floor, south elevation	08/05/2010	None Detected (ND)	Type 3 Window Metal window frame junction to glass (glazing)
3S-004	Window - Third floor, south elevation	08/05/2010	1.50 ppm	Type 3 Window Metal window frame to brick junction – right side
3S-005	Window - Third floor, south elevation	08/05/2010	0.83 ppm	Type 3 Window Metal window frame to metal window sill junction
3W-001	Window - Third floor, west elevation	08/05/2010	2.10 ppm	Type 3 Window Metal window frame to slate/stone wall system junction – left side
3W-003	Window - Third floor, west elevation	08/05/2010	1.1 ppm	Type 3 Window Metal window frame junction to glass (glazing)

Table 3

ANALYTICAL RESULTS
SLATE SPANDREL SAMPLES
M.C. SMITH FEDERAL BUILDING

TABLE 3
ANALYTICAL RESULTS
SLATE SPANDREL SAMPLES
M.C. SMITH FEDERAL BUILDING

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	ADJACENT CAULK RESULT (PPM)	COMMENTS
FIRST FLOOR					
S1N-001	North side 1st floor west end	10/28/10	U	90.0	Immediately under caulk bead
S1N-002	See S1N-001	10/28/10	U	90.0	1.0-inch from caulk bead
S1N-003	See S1N-001	10/28/10	U	90.0	2.0-inches from caulk bead
S1N-004	North side 1st floor east end	11/01/10	U	28.0	Immediately under caulk bead
S1N-005	See S1N-004	11/01/10	U	28.0	1.0-inch from caulk bead
S1N-006	See S1N-004	11/01/10	U	28.0	2.0-inches from caulk bead
S1W-001	West side 1st floor second window from south end	10/28/10	U	270.0	Immediately under caulk bead
S1W-002	See S1W-001	10/28/10	U	270.0	1.0-inch from caulk bead
S1W-003	See S1W-001	10/28/10	U	270.0	2.0-inches from caulk bead
S1E-001	East side 1st floor fourth window from north end	10/29/10	U	U	Immediately under caulk bead
S1E-002	See S1E-001	10/29/10	U	U	1.0-inch from caulk bead
S1E-003	See S1E-001	10/29/10	U	U	2.0-inches from caulk bead

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	ADJACENT CAULK RESULT (PPM)	COMMENTS
SECOND FLOOR					
S2N-001	North side 2nd floor first window on west side	10/29/10	0.029	136.0	Immediately under caulk bead
S2N-002	See S2N-001	10/29/10	U	136.0	1.0-inch from caulk bead
S2N-003	See S2N-001	10/29/10	U	136.0	2.0-inches from caulk bead
S2W-001	West side 2nd floor center window	10/29/10	0.599	99.0	Immediately under caulk bead
S2W-002	See S2W-001	10/29/10	0.030	99.0	1.0-inch from caulk bead
S2W-003	See S2W-001	10/29/10	U	99.0	2.0-inches from caulk bead
S2E-001	East side 2nd floor fifth window from north end	10/29/10	0.604	450.0	Immediately under caulk bead
S2E-002	See S2E-001	10/29/10	U	450.0	1.0-inch from caulk bead
S2E-003	See S2E-001	10/29/10	U	450.0	2.0-inches from caulk bead

TABLE 3 - CONTINUED
ANALYTICAL RESULTS
SLATE SPANDREL SAMPLES
M.C. SMITH FEDERAL BUILDING

SAMPLE #	LOCATION	SAMPLE DATE	LAB RESULT	ADJACENT CAULK RESULT (PPM)	COMMENTS
THIRD FLOOR					
S3N-001	North side 3rd floor second window from west end	10/29/10	0.104	1,300.0	Immediately under caulk bead
S3N-002	See S3N-001	10/29/10	U	1,300.0	1.0-inch from caulk bead
S3N-003	See S3N-001	10/29/10	U	1,300.0	2.0-inches from caulk bead
S3W-001	West side 3rd floor center window	10/29/10	1.090	330.0	Immediately under caulk bead
S3W-002	See S3W-001	10/29/10	U	330.0	1.0-inch from caulk bead
S3W-003	See S3W-001	10/29/10	U	330.0	2.0-inches from caulk bead
S3E-001	East side 3rd floor fifth window from north end	10/29/10	0.730	54.0	Immediately under caulk bead
S3E-002	See S3E-001	10/29/10	U	54.0	1.0-inch from caulk bead
S3E-003	See S3E-001	10/29/10	U	54.0	2.0-inches from caulk bead